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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/919,552	07/31/2001	Bing Lin Yang	YKI-0072	4384
23413	7590	03/24/2005	EXAMINER MACCHIAROLO, PETER J	
CANTOR COLBURN, LLP 55 GRIFFIN ROAD SOUTH BLOOMFIELD, CT 06002			ART UNIT 2879	PAPER NUMBER

DATE MAILED: 03/24/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

**Office Action Summary**

Application No.

09/919,552

Applicant(s)

YANG, BING LIN

Examiner

Peter J. Macchiarolo

Art Unit

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☒ Responsive to communication(s) filed on 18 January 2005.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) 8-20 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☒ Claim(s) 20 is/are allowed.
- 6) ☒ Claim(s) 8-11, 13-17 and 19 is/are rejected.
- 7) ☒ Claim(s) 12 and 18 is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 07/31/2001 is/are: a) ☐ accepted or b) ☒ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

**Priority under 35 U.S.C. § 119**

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some \* c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
  2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

**Attachment(s)**

- |  |   |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892)                        | 4) <input type="checkbox"/> Interview Summary (PTO-413)                     |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)               | Paper No(s)/Mail Date. _____  |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| Paper No(s)/Mail Date <u>01/18/2005</u> .  | 6) <input type="checkbox"/> Other: _____                                    |

## **DETAILED ACTION**

### ***Continued Examination***

1. A request for continued examination under 37 CFR 1.114, including the fee set forth in 37 CFR 1.17(e), was filed in this application on 01/18/2005. Since this application is eligible for continued examination under 37 CFR 1.114, and the fee set forth in 37 CFR 1.17(e) has been timely paid, the finality of the previous Office action has been withdrawn pursuant to 37 CFR 1.114. Applicant's submission filed on 02/05/2005 has been entered. However, pending claims 8-20 are not allowable as explained below. An action on the RCE follows.

### ***Drawings***

2. The drawings are objected to under 37 CFR 1.83(a). The drawings must show every feature of the invention specified in the claims. Therefore, the method of assembling an illuminant (claims 8, 14, and 20), evaporating the additive material (claims 12, 18, and 20) must be shown or the feature(s) canceled from the claim(s). No new matter should be entered.

3. Corrected drawing sheets in compliance with 37 CFR 1.121(d) are required in reply to the Office action to avoid abandonment of the application. Any amended replacement drawing sheet should include all of the figures appearing on the immediate prior version of the sheet, even if only one figure is being amended. The figure or figure number of an amended drawing should not be labeled as "amended." If a drawing figure is to be canceled, the appropriate figure must be removed from the replacement sheet, and where necessary, the remaining figures must be renumbered and appropriate changes made to the brief description of the several views of the drawings for consistency. Additional replacement sheets may be necessary to show the

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renumbering of the remaining figures. Each drawing sheet submitted after the filing date of an application must be labeled in the top margin as either "Replacement Sheet" or "New Sheet" pursuant to 37 CFR 1.121(d). If the changes are not accepted by the examiner, the applicant will be notified and informed of any required corrective action in the next Office action. The objection to the drawings will not be held in abeyance.

### *Claim Objections*

4. Claim 8 is objected to because of the following informalities:
5. The term, "second electrode" lacks proper antecedent basis. The Examiner reads, "second discharge electrode." Appropriate correction is required.

### *Claim Rejections - 35 USC § 103*

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

6. **Claims 8-10, 13-16, and 19 are rejected under 35 U.S.C. 103(a) as being unpatentable over previously cited Niimi et al (JP 2000-268774; "Niimi") in view of Nishimura et al (USPN 6057635; "Nishimura").**

7. Regarding claims 8 and 14, Niimi shows in figure 1, a discharge lamp comprising a cylindrical housing (1), a first discharge electrode (4) a second discharge electrode (4) opposed to the first discharge electrode to form a predetermined gap.

8. Niimi is silent to a method of manufacturing the lamp, or that the cylindrical housing is heated to fix the first discharge electrode and the second electrode to the cylindrical housing.

9. However, Nishimura teaches that heating a cylindrical housing to a sufficient temperature to fix each of the first discharge electrode and second electrode to a cylindrical housing is a known modification which allows for a secure hermetic glass-metal bond.

10. Furthermore, one skilled in the art will recognize that manufacturing such a device will comprise the steps of supporting, positioning, inserting, adjusting, and heating. Hence, the structure taught by Niimi and Nishimura meets Applicant's recited method step limitations.

11. Therefore, it would have been obvious to one having ordinary skill in the art at the time the invention was made to construct the device of Niimi and Nishimura with the method of claim 8, since the method steps are obvious in light of the resultant structure.

12. Regarding claims 9 and 15, Niimi infers that a discharge chamber formed by the predetermined gap is filled with a discharge gas, via the title of the invention, "HIGH PRESSURE DISCHARGE LAMP."

13. Regarding claims 10 and 16, Niimi is silent to filling the discharge chamber by performing the inserting and the adjusting of the first and second discharge electrodes within an atmosphere of the discharge gas.

14. However, the Examiner takes Official Notice that this is a known method of incorporating a specific atmosphere in a discharge chamber, and one would be motivated to use this method to reduce manufacturing time.

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15. Therefore, in view of the above discussion, it would have been obvious to one having ordinary skill in the art at the time the invention was made to construct the device of Niimi and Nishimura with the method of filling the discharge chamber comprises performing the inserting and the adjusting of the first discharge electrode and the second discharge electrode within the cylindrical housing in an atmosphere of the discharge gas.

16. Regarding claims 13 and 19, Niimi discloses the cylindrical housing is constructed of a transparent material and has equal inner radii at both the first open end and the second open end, and wherein each of the first discharge electrode and the second discharge electrode have an outer radius approximately equal to or slightly smaller than the inner radius of the cylindrical housing.

17. **Claims 11 and 17 are rejected under 35 U.S.C. 103(a) as being unpatentable over previously cited Niimi in view of Nishimura, in further view of Kerekes et al (USPN 4221987; “Kerekes”).**

18. Regarding claims 11 and 17, Niimi and Nishimura are silent to the cylindrical housing being supported and positioned in a vertical position.

19. However, Kerekes teaches that supporting the cylindrical housing in a vertical position allows for economical manufacture by large-scale production procedures.

20. Therefore, in view of the above discussion, it would have been obvious to one having ordinary skill in the art at the time the invention was made to construct the device of Niimi and Nishimura and supporting and positioning the device in a vertical position.

***Response to Arguments***

21. Applicant's arguments filed 01/18/2005 have been fully considered but are moot in view of the new ground(s) of rejection.

***Allowable Subject Matter***

22. Claim 20 is allowed. Claims 12 and 18 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

23. The following is an examiner's statement of reasons for indicating allowable subject matter:

24. Regarding claims 20, 12, and 18, the Prior Art of record fails to teach or suggest the method further comprises disposing an additive material on the concave section, and evaporating the additive material during the heating of the cylindrical housing in combination with the remaining limitations of the claims.

25. Any comments considered necessary by applicant must be submitted no later than the payment of the issue fee and, to avoid processing delays, should preferably accompany the issue fee. Such submissions should be clearly labeled "Comments on Statement of Reasons for Allowance."

***Conclusion***

26. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

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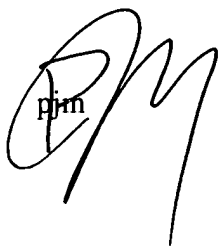

27. USPN 6824438 to Park is evidence that filling a discharge chamber with a discharge gas by performing a sealing step of the discharge chamber inside an atmosphere with the discharge gas is known.

28. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Peter J Macchiarolo whose telephone number is (571) 272-2375.

The examiner can normally be reached on 8:30 - 5:00, M-F.

29. If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Nimeshkumar Patel can be reached on (571) 272-2475. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

30. Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

A handwritten signature in black ink, appearing to be 'PJM', with a stylized flourish extending from the bottom right.A handwritten signature in black ink, appearing to be 'Joseph Williams', written in a cursive style.  
**JOSEPH WILLIAMS**  
**PRIMARY EXAMINER**